

PTF 10049

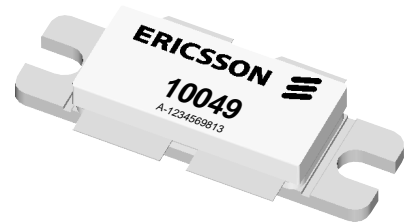
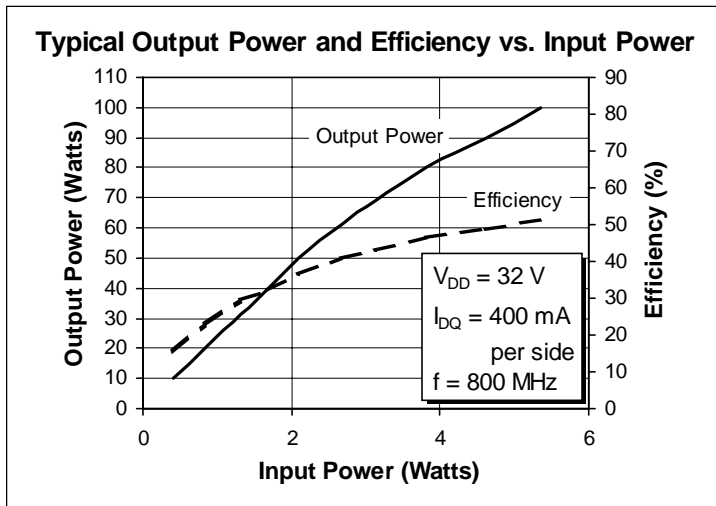
85 Watts, 470–860 MHz

GOLDMOS™ Field Effect Transistor

Description

The PTF 10049 is an internally matched, common source, N-channel enhancement-mode lateral MOSFET intended for large signal television amplifier applications in the 470 to 860 MHz band. It is rated at 85 watts power output. Nitride surface passivation and full gold metallization ensure excellent device lifetime and reliability.

- **INTERNALLY MATCHED**
- **Performance at 800 MHz, 32 Volts**
 - Output Power = 85 Watts
 - Power Gain = 13.5 dB Typ
 - Efficiency = 58% Typ
- **Full Gold Metallization**
- **Silicon Nitride Passivated**
- **Excellent Thermal Stability**
- **100% Lot Traceability**



Package 20240

RF Specifications (100% Tested)

Characteristic	Symbol	Min	Typ	Max	Units
Common Source Power Gain ($V_{DD} = 32\text{ V}$, $P_{OUT} = 30\text{ W}$, $I_{DQ} = 400\text{ mA}$ per side, $f = 800\text{ MHz}$)	G_{ps}	12.0	13.5	—	dB
Power Output at 1 dB Compression ($V_{DD} = 32\text{ V}$, $I_{DQ} = 400\text{ mA}$ per side, $f = 800\text{ MHz}$)	P-1dB	85	100	—	Watts
Drain Efficiency ($V_{DD} = 32\text{ V}$, $P_{OUT} = 85\text{ W}$, $I_{DQ} = 400\text{ mA}$ per side, $f = 800\text{ MHz}$)	η_D	52	58	—	%
Distortion ($V_{DD} = 32\text{ V}$, $P_{OUT} = 85\text{ W(PEP)}$, $I_{DQ} = 400\text{ mA}$ per side, $f_1 = 800\text{ MHz}$, $f_2 = 801\text{ MHz}$)	IMD ₃	-30	-35	—	dBc
Load Mismatch Tolerance ($V_{DD} = 32\text{ V}$, $P_{OUT} = 42.5\text{ W}$, $I_{DQ} = 400\text{ mA}$ per side, $f = 800\text{ MHz}$ —all phase angles at frequency of test)	Ψ	—	—	5:1	—

All published data at $T_{CASE} = 25^\circ\text{C}$ unless otherwise indicated.